Event

MPTS IJET BI 4101 – BI 4103 T-45

Mission

BASIC INSTRUMENTS

1.5 HOURS/X

ORM

BI 4101-03

- **OPERATIONAL REQUIREMENTS / LIMITATIONS**
  - **CREW REST/ CREW DAY / WORK WEEK**
  - **WARM-UP ELIGIBILITY**
  - **PREVIOUS FLIGHT COMPLETE?**
  - **IP CURRENCY**
  - **READ AND INITIAL**

- **HUMAN FACTORS**
  - **LIFE STRESSORS / EXTERNAL FACTORS/ PERSONAL PROBLEMS**
  - **MEDICAL STATUS**
    - **CREW DAY**
    - **CREW REST**
    - **NOURISHMENT**
    - **HYDRATION**

- **HAZARDS AND CONTROLS**
  - **ROUTINE**
  - **WEATHER**
    - **CURRENT OBSERVATIONS AND FORECASTS**
    - **CROSSWINDS**
    - **FUEL CONSIDERATIONS**

TTO

BI 4101-03

- **WHO WILL CALL A TTO?**

- **WHAT SITUATIONS WILL THE TTO BE CALLED?**
  - **SAFETY**
  - **CONFUSION**
  - **MISUNDERSTANDING**

- **IP RESPONSIBILITIES**
  - **RECOGNIZE THE NEED FOR A TTO**
  - **EXPLANATION / INSTRUCTION AS NECESSARY**
  - **DOCUMENTATION ON ATF**

- **WHEN AND HOW WILL TRAINING RESUME?**

SSR/DISCUSS ITEMS

BI 4101-03

- **SPECIAL SYLLABUS REQUIRMENTS:**
  - **IP MUST DEMO MANUP AND SEAT PRE-FLIGHT ON BI 4101**

  - **PREREQUISITES:**
  - **BI 3205**
  - **CO 1107**

- **DISCUSS ITEMS:**

  BI 4101
  - **NATOPS/SOP/EP QOD**
  - **RADALT USAGE**
  - **APPROACH CONFIGURATIONS**
  - **COMPRESSOR STALL**

  BI 4102 - 4103
  - **NATOPS/SOP/EP QOD**

SYLLABUS NOTES

BI 4101-03

A. FLY EVENTS FROM THE REAR COCKPIT WITH HOOD.

B. BI 4101 BRIEF SHOULD BEGIN 2+00 PRIOR TO SCHEDULED TAKEOFF.

C. BI 4101 SHALL BE CONDUCTED WITHIN THE LOCAL WORKING AREA AND INCLUDE S-3 PATTERN, TIMED TURNS, STALLS, UNUSUAL ATTITUDES AND PARTIAL PANEL.

D. BI 4102 SHALL FLY ON THE FOLLOWING MANEUVERS:

- **DEPARTURE SID**
- **TACAN/VOR DME APPROACH 1 FULL PANEL**
- **ASR 1**
- **ILS/PAR 1**
- **PAR 1 PARTIAL PANEL**
- **NO-GYRO GCA 1**

SYLLABUS NOTES

BI 4101-03

E. ONLY NON-SYSTEM POINT-TO-POINTS WILL BE PRACTICED IN THIS BLOCK.

F. DURING THIS BLOCK, STUDENTS MUST FLY AT LEAST THE MANEUVERS LISTED BELOW:

- **HIGH ALTITUDE PENETRATION 1**
- **TACAN/VOR DME 1 FULL PANEL**
- **ASR 1 FULL PANEL**
- **PRECISION APPROACHES (ILS, PAR) 4 FULL PANEL**
- **PAR 1 PARTIAL PANEL**
- **NO-GYRO GCA 1**

- **ADVISE YOUR IP – HOW MANY/WHAT TYPE OF APPROACHES REMAIN PRIOR TO END OF BLOCK.**

ADMIN (CARD)

BI 4101-03

- **A/C – ATC C/S – CREW**
- **BRIEF / WALK / TAKEOFF / LAND TIMES**
- **ATC CLEARANCE / DD-175**
- **FUEL PLAN/LADDER**
- **LINE / T/O / ABORT / RPM**
- **COMM PLAN**
- **NAV PLAN**

ADMIN

BI 4101-03

- **LAUNCH**
  - **WEATHER / NOTAMS / TFR / BASH**
  - **PREFLIGHT / START / TAXI**
  - **ITO**
  - **SWAPPING OF CONTROLS**
  - **ENROUTE PROCEDURES**
  - **RADALT USAGE**

- **RTB**
  - **RECOVERY**
  - **DIVERTS**

Conduct

BI 4101-03

- **TIMS RESUME REVIEW**

- **INTRODUCE (SSR):**
  - **MAN-UP AND SEAT PRE-FLIGHT**
    - **SEAT PRE-FLIGHT**
    - **SEAT STRAP-IN**
    - **LOWER LEG RESTRAINTS DIAGRAM**
    - **IFR HOOD INSTALLATION**

Conduct

BI 4101-03

- **PRACTICE:**
  - **CHECKLISTS**
    - **INST CHECKLISTS**
  - **IFR CLEARANCES**
  - **INST COMM**
  - **SID**
  - **TURN PATTERN**
  - **LEVEL SPEED CHANGE ½ SRT**
  - **S-1 PATTERN**
  - **S-3 PATTERN**
  - **STALL SERIES**
  - **PARTIAL PANEL**

Conduct

BI 4101-03

- **UNUSUAL ATTITUDES**
- **TACAN/VOR DME APPROACH**
  - **HI TACAN B KMEI**
  - **ILS RWY 1 KMEI**
  - **ILS RWY 19 KMEI**
  - **VOR A KMEI**

- **MISSED APPROACH**
- **PAR APPROACH**
  - **GCA PROCEDURES**
- **ASR APPROACH PARTIAL PANEL**
  - **GCA PATTERN FIGURE**

DID YOU KNOW?

- **THE TCN CONE OF CONFUSION EXPANDS TO 18 NM ACROSS AT 30,000 FT**
- **ON AN ILS APPROACH - FULL LOCALIZER DEFLECTION AT RWY THRESHOLD WOULD PLACE THE AIRCRAFT AT LEAST 350 FT FROM THE RUNWAY CENTERLINE**
- **ON AN ILS APPROACH WE ARE ALWAYS SUPPOSED TO START THE CLOCK AT THE OUTER MARKER/FAF**
- **ANGULAR DEVIATION (X) DME = APPROX DISTANCE FROM THE DESIRED RADIAL**

BLOCK MIF

BI 4101-03

CTS REF	MANEUVER	BI4103
1	General Knowledge/Procedures	4+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	3+
4	Basic Airwork	3+
5	Mission Planning/Briefing/ Debriefing	4+
6	Communications	3+
7	Ground Operations	3+
10	Takeoff	1+
11	Departure	3+
12 25	Climbs/Descents	3+
12	Enroute Navigation	3+
12	Intercept/Maintain Course	3+
12	Point-to-Point Navigation	2
12	Arcing	3+
25	Turn Pattern	4+
25	S-3 Pattern	4+
29	Stall Series	3+
28	Unusual Attitudes	4+
16	High Altitude Penetration	3+
18	TACAN/VOR DME Approach	3+
18	ASR Approach	3+

CTS REF	MANEUVER	BI4103
17	ILS Approach	3
17	PAR Approach	3
17 18 5	Partial Panel GCA Approach	3+
17 18 5	Partial Panel Approach	3+
17	No-Gyro GCA	3+
20	Missed Approach	3+
20 5	Partial Panel Missed Approach	3+
	Special Syllabus Requirements	1

Emergencies

BI 4101-03

- **AIRCRAFT FALLOUT**
- **CLEAR ENGINE PROCEDURE**
- **ABORTED TAKEOFF**
- **RWY DEP / LOSS OF DIRECTIONAL CONTROL**
- **SYSTEM FAILURES/ EPs / CRM**
- **BIRD STRIKE/ MIDAIR**
- **RADIO/ ICS FAILURE**
- **LOSS OF NAVAIDS / LOST PLANE**
- **INADVERTENT IMC / LOST SIGHT / LCLS**
- **DISORIENTATION / VERTIGO**
- **HYPOXIA**
- **EJECTION (HIGH / LOW / GROUND)**
- **SAR / ON SCENE COMMANDER**
- **DIVERT(S) / BINGO FUEL TO DIVERT**

STANDARD DEBRIEFING FORMAT

BI 4101-03

- THE FLIGHT LEAD OR PILOT-IN-COMMAND IS RESPONSIBLE FOR ENSURING ALL FLIGHT OR CREWMEMBERS ARE THOUROUGHLY DEBRIEFED ON THE CONDUCT OF THE MISSION UTILIZING THE "S-P-B-E-MS-LL" FORMAT OUTLINED BELOW.

I. SAFETY
II. PLANNING
III. BRIEF
IV. EXECUTION
V. MISSION SUCCESS
VI. LESSONS LEARNED